Everything You Wanted to Know About…

- **The Trane Company and doing business with Super ESPC projects via the Department of Energy Technology-Specific Super ESPC program for Geothermal Heat Pumps…**
- **How ALL Federal Agencies can utilize this exciting and environmentally friendly Geothermal Heat Pump technology to reduce operational costs by 30-40% over your current systems…**
- **How ALL Federal Agencies can utilize the streamlined ESPC procurement process to get *real* projects with *real* savings implemented in a streamlined and efficient manner…**

Who Are We?

The Trane Company team is comprised of industry experts specializing in the Geothermal Heat Pump technology and Performance Contracting Solutions. Our team was developed to minimize the Project Development time required for feasibility studies, engineering, construction and financing during pre-Delivery Order proposal process and deliver a quality product to meet the needs and expectations of the customer.

- **The Trane Company –** A Comprehensive Comfort Solution provider for products and services in the HVAC and controls industries. In addition to traditional HVAC equipment solutions, The Trane Company designs, builds and sells water source and ground source heat pumps for customers all over the world. With annual sales nearly $5 billion, The Trane Company has performed over $900M in energy-related construction projects including over $180M in performance contracting services over the past few years. In an era of utility deregulation, you can rely on Trane to be a steady and reliable solutions provider for years to come. Trane has a dedicated team of professionals available to perform ESPC Delivery Order projects at any Federal site across the country. In most cases, a Trane location is never more than a short drive away.

- **Geo-Enterprises, Inc. and other GHP specialty firms -** The combined expertise of the professionals of these companies in the Geothermal Heat Pump industry, is over several hundred years. This experience includes energy modeling, simulations, in-situ testing, building commissioning, controls optimization, trouble-shooting, piping and pumping optimization, contracting and design/production capabilities. Geo-Enterprises is an experienced contractor specializing in geo-exchange systems including wells, horizontal piping, extended Slinky™ lake coils, and lake once-through pumping.

- **SSOE, Inc. & Reynolds Smith & Hill, Inc. –** These two prominent, national architectural and engineering firms are on The Trane Company team for their energy engineering, design and Federal contracting expertise. These two companies will support the Project Development process in the general ECM categories that are associated with the primary geothermal systems category. With SSOE and RS&H on our team, our Federal Customers can be assured that ample engineering resources are available to ensure on-time delivery of high quality work and the shortest lead-time to project implementation.

How can the Trane team help me?

The Trane Company Team will work hard to find a solution to meet your facilities' specific needs. A Trane Account Executive will meet with you to discuss your situation, requirements, and goals and help you figure out if your facility is an ESPC and Geothermal Heat Pump candidate. Once the feasibility of an ESPC and Geothermal Heat Pump technology is established, the next step is to get you comfortable with the DOE Super ESPC Delivery Order process. Once you feel comfortable and have established the necessary relationship criteria with the DOE and FEMP, The Trane Company will begin the technical analysis of your facility and submit an initial proposal. Our team is fully capable and ready to meet your unique facility needs. We've used this process to be successful in the past. In fact, The Trane Company was awarded the *first* Notice of Intent to Award under the DOE's Technology-Specific Geothermal Heat Pump Super ESPC program.

We have done projects for the Federal Government is all parts of the world. In fact, Trane was awarded the first Delivery Order under the GHP Super ESPC in a foreign country – Korea. The project was centered on geothermal heat pumps and was nearly $6M in size. Again, Trane is uniquely positioned to help you meet your successes.

More About the Geothermal Heat Pump Technology

A heat pump—like an air conditioner or refrigerator—moves heat from one place to another. In the summer, a geothermal heat pump (GHP) operating in a cooling mode lowers indoor temperatures by transferring heat to the ground. Unlike an air conditioner, though, a heat pump's process can be reversed. In the winter, a GHP extracts heat from the ground and transfers it inside. Also, the GHP can use waste heat from summer air-conditioning to provide virtually free water heating. The energy value of the heat moved is typically more than three times the electricity used in the transfer process. GHPs are efficient and require no backup heat because the earth stays at a relatively moderate temperature throughout the year.

The GHP system includes three major components: a ground loop (buried piping system), the heat pump itself (inside the building), and a heating and cooling distribution system. The *earth-coupled* (or closed-loop) GHP uses sealed horizontal or vertical pipes as heat exchangers through which water, or water and antifreeze, transfer heat to or from the ground. Because of their versatility, earth-coupled systems dominate the GHP market. Typical loop installations for the earth-coupled systems are expected to work for 50 years. Applications of geothermal technology include: most building types, combined geothermal piping/well-fields, hot water recovery, radiant heating, snow melting, refrigeration equipment, optimized pumping, lake rejection and process cooling.

Since The Trane Company is both a pre-qualified contractor and a manufacturer of geothermal heat pumps, we are uniquely qualified to serve the needs of any federal agency under the DOE's Technology-specific Geothermal Heat Pump Super ESPC program. We are ready, willing and able to help!

Will Geothermal Heat Pump Technology Work at My Facility?

GHPs operate in all climates, including colder regions where a large difference exists between the ambient air temperature and the ground temperature below the frost line. GHP Systems have been successfully installed in almost every state in U.S. In addition to energy savings, many building owners factor in other benefits such as: reduced heating, ventilation, and air-conditioning (HVAC) maintenance costs and opportunity to completely eliminate boilers and cooling towers.

What Should I Do Next?

Call us!

Call the Federal Sector Team at 651-407-3800 or our Government Affairs Office in Washington, D.C. at 703-525-4015. We look forward to discussing your potential GHP project with you!